## THE GEOGRAPHIC RANGES OF CERTAIN JUNCI POIOPHYLLI.

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Juncus Vaseyi Engelm. The most recent statement of the range of this species (Gray's Manual, Ed. 7) is "northern New Brunswick to Saskatchewan, south to central Maine, northern New York, Michigan, Illinois, Iowa, and Colorado." The two following stations extend this range well to the northward of Bourgeau's station "on the Saskatchewan": — Keewatin; between Echimamash River and Oxford House, July, 1880, Robert Bell. (Upon this collection are based the records of Juncus tenuis Willd. in Report Geol. Surv. Canada, 1879–80, p. 65c and in Macoun, Catalogue of Canadian Plants, iv. p. 59). Athabasca; North of Peace River, 5 July, 1903, J. M. Macoun 61281 (distributed as Juncus Dudleyi Wiegand).

Juncus Dudleyi Wiegand. The range given for this species in the Manual, "Quebec to Saskatchewan and the Rocky Mountains," etc., should be extended to include Washington. Juncus Dudleyi was recorded from this state by Wiegand in Bull. Torr. Bot. Club, xxx. (1903) p. 446, but Piper did not include it in his Flora of Washington. I have seen the following specimens:—from various stations in Klickitat Co., Suksdorf 1043, 2523, 3232, 3273, 5052, 5053, 6224, & 6225; Cape Horn, Skamania Co., 19 Aug. 1894, Suksdorf 3594; Latah Creek, Spokane Co., 28 June, 1889, Suksdorf 1043.

Juncus interior Wiegand. Washington should be included in the range of this prairie type, on the basis of a specimen from Prosser, Yakima Co., Cotton 647 (distributed as Juncus tenuis and cited under this name in the Flora of Washington).

Juncus Brachyphyllus Wiegand. This species is known from New Mexico (v. infra), the region of the upper Platte (western Nebraska, northern Colorado, or Wyoming), Idaho, Oregon, and Washington. The extension of its range into the two latter states is based upon beautiful specimens received for determination from Mr. Suksdorf, and upon other specimens which were unidentified or incorrectly identified when received at the Gray Herbarium. These are: — Oregon: Hood River Valley, Wasco Co., Suksdorf 210 & 215. Washington: moist hillsides, Blue Mountains, Columbia Co., Horner

R198B497; wet places and damp cliffs near Bingen, Klickitat Co., Suksdorf 3817, 6221 & 6231.

Dropping Arkansas from the range of this species requires a word of explanation. In his first paper on the *Juncus tenuis* allies (Bull. Torr. Bot. Club, xxvii. (1900) p. 520), Wiegand cited the three specimens from which he drew up the original description of *Juncus brachy-phyllus* as follows:—

"Arkansas: (Between Morka and Red Fork) (Marcy's Exped. Herb. G. Thurber); Upper Platte (Hayden in Gray Herb. type.)

Idaho: (Lake Waha) (Heller, no. 3410, 1896)."

Both of the specimens said to be from Arkansas are in the Gray Herbarium. The original label of the former reads, "Between Moska and red fork Ark. June-Sept. 1849." A supplementary label, dating from the time that the Thurber collection was incorporated with the Gray Herbarium, ascribes the specimen to "Marcy's Expedition." When the itinerary of the Marcy Expedition of 1849 was looked up (The Report of Capt. R. B. Marcy's Route from Fort Smith to Santa Fe, 31st Congress, 1st Session [Senate] Ex. Doc. no. 64 (1850) p. 169), it was found that the expedition, which started from Fort Smith on the fifth of April, arrived at Santa Fe, New Mexico, on the twenty-eighth of June and that the return trip to Fort Smith was begun about the twenty-fifth of August. The line of march on the return was southward to Dona Ana on the Rio Grande, and from there in general eastward and southeastward, until, eight days after crossing the Pecos River, they "pushed out upon the high plain of the Llano Estacado." This was on the twenty-ninth of September. On October sixth they "struck into a creek bottom, followed it down about three miles to its junction with a large stream, which is the main Red Fork of the Colorado.... The main Rio Colorado has, near its head, two principal tributaries — the Concho and the Red Fork." There can be no doubt that this is the Red Fork of the Marcy label. It remains to identify his "Moska." The name is not mentioned in his report nor is it on his map. So far as there is any evidence, however, it seems to have been the name of his camp near Santa Fe, for on U.S. Land Office maps of later date a tract about ten miles northeast of Santa Fe is called "Sierra Mosca." This was afterwards the site of Fort Marcy. It would seem likely, from the montane and northern distribution of Juneus brachyphyllus, that the Marcy specimen was collected in the mountainous region about Santa Fe, where the expedition encamped for several weeks, or at least within the present limits of New Mexico, rather than in the desert region of northwestern Texas, through which the route lay after the ninth of September.

The second "Arkansas" station cited in Wiegand's paper is, of course, erroneous also. The Hayden specimen from the upper Platte must have been collected in western Nebraska, northern Colorado or Wyoming. If any herbarium contains a dated duplicate of the specimen in the Gray Herbarium, it might perhaps be accurately localized by referring to the lists published in several volumes of the Reports of the Hayden Survey. Since the specimen is the type of the species, this would be well worth while.

It is unfortunate that these geographical slips should have been perpetuated by Buchenau (Pflanzenreich, iv. 36, p. 120), in a manner which affords no clue to correcting them,—"Bis jetzt nur bekannt aus Arkansas (Marcy, Hayden) und Idaho (Heller n. 3410)."

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## SALIX PEDICELLARIS AND ITS VARIATIONS.

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The attractive bog willow, which for several decades passed in America as Salix pedicellaris Pursh, was considered by Tuckerman <sup>1</sup> to be identical with the European S. myrtilloides L., although with the concessions that "the Lapland plant is less inclined to be glaucous" and is "distinguished by the broad, often cordate base of the leaves, a habit which I have never observed in ours"; <sup>1</sup> and with the further comments that "Fries truly calls it elegant; noticing also, as does Wahlenberg, its resemblance in habit to Vaccinium uliginosum. It being a very northern and remarkably broad-leaved state of the species, which suggests this comparison, it is not surprising that our much larger and narrower-leaved form should not so well compare with our exclusively alpine and small-leaved form of the Vaccinium. Fries remarks upon S. myrtilloides, that its leaves do not easily blacken in drying: this is also true of our plant, which preserves all its beauty in